

15. Tables

Table 1. Station Locations and Descriptions.

Station Code	Station Name	Station Location			Sensor Type	Began (year.day)	Rock and Comments
		Lat. (°N)	Lon. (°E)	El. (m)			
SFT2	Fern Peak	37.15244	-121.81133	518	STS-2 or SV/H-1	1993.127‡	Serpentinite, adjacent to various Franciscan†. Surface insulation required.
		37.153042	-121.812232				
MHC	Mount Hamilton	37.342	-121.642	1282	STS-1	1986.253	Franciscan (greenstone). Permanent UCB vault.
SFT4	San Antonio Valley	37.38883	-121.49450	600	STS-2 or SV/H-1	1993.228‡	Franciscan, metabasalt? Surface insulation unknown.
SFT5	Ingram Canyon	37.50483	-121.32664	312	STS-2 or SV/H-1	1993.097‡	Franciscan graywacke (or metavolcanic)†. Surface insulation required.
		37.505053	-121.328514				
CMB	Columbia	38.035	-120.383	719	STS-1	1992.176	Paleozoic marine limestone. Permanent UCB vault.

†Second set of coordinates derived from GPS, using medians. For SFT2 we used 230 GPS readings, for SFT5 1,985 readings. SFT2 GPS location is 104 m NW of the topographic-map location; SFT5 GPS location is 167 m WNW of its topographic-map location. It is not clear which type of location is "better", though the GPS locations are relative to a more modern datum.

‡In intermittent operation.

Table 2. Recording Periods and Instrument Specifications

Date on (day:hour:minute)	Date off	SFT2, New Almaden				notes
		sps	sensor type	gain (x)	DAS S/N:type*	
128:03:08	137:19:03	10	STS-2	1	0540:-02	†
190:19:41	196:02:19	20	SV/H-1	32	7062:-07	
196:03:57	201:20:35	20	STS-2	1	7062:-07	
201:21:20	210:01:35	20	STS-2	1	7062:-07	
210:03:57	-221:02:35	20	STS-2	1	7062:-07	Disk filled
Date on	Date off	SFT5, Ingram Canyon				
097:01:38	103:19:39	10	STS-2	1	0540:-02	†
104:01:25	110:21:14	10	STS-2	1	0540:-02	†
110:23:37	125:21:36	10	STS-2	1	0540:-02	†
110:23:37	125:21:36	10	STS-2	1	0540:-02	†
097:02:21	103:20:48	10	SV/H-1	128	0547:-02	†
104:01:32	-104:04:32	10	SV/H-1	128	0547:-02	DAS failed‡ †
110:23:20	125:22:08	10	SV/H-1	128	0547:-02	†
125:23:27	138:01:57	10	SV/H-1	32	0547:-02	†
191:02:12	197:02:07	20	SV/H-1	32	7064:-07	
197:03:31	205:02:34	20	STS-2	1	7064:-07	
205:03:13	-216:01:51	20	STS-2	1	7064:-07	Disk filled
216:20:14	222:18:41	20	STS-2	1	7064:-07	
197:03:11	205:03:24	20	Fluke 80TK	1	7080:-07	
205:03:53	216:20:30	20	Fluke 80TK	32	7080:-07	
216:23:33	222:19:17	20	Fluke 80TK	32	7080:-07	

On 72A-02, the data are recorded at 10 sps with 32-bit data from a 16-bit analog-to-digital converter (ADC). Decimation yields about 19-bits resolution. On a 72A-07, the sample rate is 20 sps with 32-bit recording from a 24-bit ADC. Gains are higher on the SV-1 and SH-1 because they are simple electromagnetic transducers, without preamplification or feedback.

For vault-temperature tests (DAS S/N 7080), sample rate was 20 sps, because this is the lowest rate available on a 72A-07, with 32-bit recording from a 24-bit ADC. These specifications far outreach the 80TK's and thermocouple's capabilities. Recording at 1 sps and 16 bits is appropriate when a spare channel of a 72A-02 is available.

*For example, "0540:-02" means DAS serial number 0540, which is a 72A-02.

†WWVB recorded and evaluated as backup to GPS clock. All other intervals (72A-07 recorders) had only the GPS clock.

‡DAS failure is due to programming incompatibility (a 100 sps timed recording of the main-sensor channels, with a repeat interval of 99 days, 23:59:59). The long repeat interval probably caused a DSP timeout after several hours, by overreaching DAS software capabilities. This stream was intended to induce high-sample-rate recording of the sensors during calibration, but was discontinued after this one recording interval.

Table 3. Events Extracted from Continuous Records, 1993

DAS Channels V N E	DAS S/N	Sensor Type	Site Name	Start Time (day hr min sec)	Length (s)	Event description(s) (L,R,T,V= Local, Regional, Teleseismic, Vehicular)
4 5 6	0540	STS-2	SFT5	097 01 44 45†	915	Calibration
1 2 3	0547	SV/H-1	SFT5	097 02 23 45	150	Calibration
4 5 6	0540	STS-2	SFT5	098 00 32 30	75	small L
1 2 3	0547	SV/H-1	SFT5	098 00 32 30	75	...
4 5 6	0540	STS-2	SFT5	098 02 10 30	165	R?
1 2 3	0547	SV/H-1	SFT5	098 02 10 30	165	...
4 5 6	0540	STS-2	SFT5	098 10 37 00	120	small L
1 2 3	0547	SV/H-1	SFT5	098 10 37 00	120	...
4 5 6	0540	STS-2	SFT5	098 14 28 15	180	L
1 2 3	0547	SV/H-1	SFT5	098 14 28 15	180	...
4 5 6	0540	STS-2	SFT5	098 15 59 00	135	L
1 2 3	0547	SV/H-1	SFT5	098 15 59 00	135	...
4 5 6	0540	STS-2	SFT5	098 16 49 45	135	R
1 2 3	0547	SV/H-1	SFT5	098 16 49 45	135	R
4 5 6	0540	STS-2	SFT5	098 19 21 00	1620	Dominican Republic, m5.1, 20-s L/R seen
1 2 3	0547	SV/H-1	SFT5	098 19 21 00	1620	...
4 5 6	0540	STS-2	SFT5	098 23 58 30	90	R
1 2 3	0547	SV/H-1	SFT5	098 23 58 30	90	...
4 5 6	0540	STS-2	SFT5	099 02 40 45	105	very small L?
1 2 3	0547	SV/H-1	SFT5	099 02 40 45	105	...
4 5 6	0540	STS-2	SFT5	099 06 58 00	120	small L
1 2 3	0547	SV/H-1	SFT5	099 06 58 00	120	...
4 5 6	0540	STS-2	SFT5	099 07 12 00	3600	New Zealand, m5.8 (not seen)
1 2 3	0547	SV/H-1	SFT5	099 07 12 00	3600	...
4 5 6	0540	STS-2	SFT5	099 09 53 00	60	very small L
1 2 3	0547	SV/H-1	SFT5	099 09 53 00	60	...
4 5 6	0540	STS-2	SFT5	099 10 54 45	75	very small R?
1 2 3	0547	SV/H-1	SFT5	099 10 54 45	75	...
4 5 6	0540	STS-2	SFT5	099 11 48 30	2560	Luzon, m5.4, 20-s L/R seen
1 2 3	0547	SV/H-1	SFT5	099 11 48 30	2560	...
4 5 6	0540	STS-2	SFT5	099 16 25 00	60	very small L?
1 2 3	0547	SV/H-1	SFT5	099 16 25 00	60	...
4 5 6	0540	STS-2	SFT5	099 17 37 15	105	very small R?
1 2 3	0547	SV/H-1	SFT5	099 17 37 15	105	...
4 5 6	0540	STS-2	SFT5	099 21 20 20	70	small L
1 2 3	0547	SV/H-1	SFT5	099 21 20 20	70	...
4 5 6	0540	STS-2	SFT5	099 21 52 00	90	L
1 2 3	0547	SV/H-1	SFT5	099 21 52 00	90	...
4 5 6	0540	STS-2	SFT5	100 00 15 00	360	Good T or R (unknown hypocenter), small L at end
1 2 3	0547	SV/H-1	SFT5	100 00 15 00	360	...

†File names for this event, for example, are: "93097.014445.sts2.sft5.4", "93097.014445.sts2.sft5.5", "93097.014445.sts2.sft5.6", and "93097.014445.sts2.sft5.ah".

Table 3 (continued)

DAS Channels V N E	DAS S/N	Sensor Type	Site Name	Start Time (day hr min sec)	Length (s)	Event description(s) (L,R,T,V= Local, Regional, Teleseismic, Vehicular)
4 5 6 1 2 3	0540 0547	STS-2 SV/H-1	SFT5 SFT5	100 03 30 20 100 03 30 20	60 60	L?, low-frequency, S-P-8 s ...
4 5 6 1 2 3	0540 0547	STS-2 SV/H-1	SFT5 SFT5	100 08 15 30 100 08 15 30	120 120	R ...
4 5 6 1 2 3	0540 0547	STS-2 SV/H-1	SFT5 SFT5	100 09 28 00 100 09 28 00	60 60	very small L? ...
4 5 6 1 2 3	0540 0547	STS-2 SV/H-1	SFT5 SFT5	100 10 02 45 100 10 02 45	60 60	very small L?, low-frequency ...
4 5 6 1 2 3	0540 0547	STS-2 SV/H-1	SFT5 SFT5	100 16 53 30 100 16 53 30	60 60	small L ...
4 5 6 1 2 3	0540 0547	STS-2 SV/H-1	SFT5 SFT5	101 00 04 10 101 00 04 10	125 125	very small R? ...
4 5 6 1 2 3	0540 0547	STS-2 SV/H-1	SFT5 SFT5	101 00 25 45 101 00 25 45	60 60	small L ...
4 5 6 1 2 3	0540 0547	STS-2 SV/H-1	SFT5 SFT5	101 06 45 50 101 06 45 50	60 60	small L ...
4 5 6 1 2 3	0540 0547	STS-2 SV/H-1	SFT5 SFT5	101 07 12 00 101 07 12 00	5400 5400	New Zealand, m5.8, and Volcano Island, m5.0, 20-s L/R seen ...
4 5 6 1 2 3	0540 0547	STS-2 SV/H-1	SFT5 SFT5	101 12 27 00 101 12 27 00	90 90	L ...
4 5 6 1 2 3	0540 0547	STS-2 SV/H-1	SFT5 SFT5	101 19 41 00 101 19 41 00	60 60	small L ...
4 5 6 1 2 3	0540 0547	STS-2 SV/H-1	SFT5 SFT5	102 03 21 00 102 03 21 00	75 75	L ...
4 5 6 1 2 3	0540 0547	STS-2 SV/H-1	SFT5 SFT5	102 06 43 45 102 06 43 45	90 90	very small L/R? ...
4 5 6 1 2 3	0540 0547	STS-2 SV/H-1	SFT5 SFT5	102 07 57 45 102 07 57 45	75 75	small L/R ...
4 5 6 1 2 3	0540 0547	STS-2 SV/H-1	SFT5 SFT5	102 08 40 10 102 08 40 10	65 65	very small L? ...
4 5 6 1 2 3	0540 0547	STS-2 SV/H-1	SFT5 SFT5	102 10 00 00 102 10 00 00	7200 7200	Noise sample, morning ...
4 5 6 1 2 3	0540 0547	STS-2 SV/H-1	SFT5 SFT5	102 21 47 00 102 21 47 00	75 75	very small L ...
4 5 6 1 2 3	0540 0547	STS-2 SV/H-1	SFT5 SFT5	102 22 00 00 102 22 00 00	7200 7200	Noise sample, afternoon ...
4 5 6 1 2 3	0540 0547	STS-2 SV/H-1	SFT5 SFT5	103 09 05 30 103 09 05 30	60 60	very small R? ...
4 5 6 1 2 3	0540 0547	STS-2 SV/H-1	SFT5 SFT5	103 19 19 30 103 20 42 45	960 180	Calibration Calibration
4 5 6	0540	STS-2	SFT5	104 06 04 00	3600	Large T, Fox Islands, Aleutians m5.6 h33

Table 3 (continued)

DAS Channels V N E	DAS S/N	Sensor Type	Site Name	Start Time (day hr min sec)	Length (s)	Event description(s) (L,R,T,V= Local, Regional, Teleseismic, Vehicular)
4 5 6	0540	STS-2	SFT5	104 11 54 45	75	very small R?
4 5 6	0540	STS-2	SFT5	104 12 14 30	90	L
4 5 6	0540	STS-2	SFT5	104 12 16 15	105	nice L
4 5 6	0540	STS-2	SFT5	104 19 58 30	90	small R or V?
4 5 6	0540	STS-2	SFT5	105 13 42 15	1065	small T, Fiji m4.9 h457
4 5 6	0540	STS-2	SFT5	105 16 26 45	75	very small R?
4 5 6	0540	STS-2	SFT5	105 21 36 45	75	small R or T? No QED hypocenter found
4 5 6	0540	STS-2	SFT5	106 04 14 00	960	small T, Alaska m5.2 h32
4 5 6	0540	STS-2	SFT5	106 14 18 30	3990	T, Fiji m5.9 h569; S SS
4 5 6	0540	STS-2	SFT5	106 17 16 15	75	small L
4 5 6	0540	STS-2	SFT5	106 20 34 00	120	R, S-P-23s
4 5 6	0540	STS-2	SFT5	107 12 43 45	255	very small R, d5.28; P and S
4 5 6	0540	STS-2	SFT5	107 13 37 00	105	R, S-P-10s
4 5 6	0540	STS-2	SFT5	107 15 51 30	120	L, S-P-7s
4 5 6	0540	STS-2	SFT5	107 20 43 30	1890	T, Fiji m5.7 h33; S SS surface
4 5 6	0540	STS-2	SFT5	108 09 25 45	2775	T, Peru m6.2 h91; P S SKS surface P'P'?
4 5 6	0540	STS-2	SFT5	108 14 22 45	3735	T, Pacific-Antarctic Ridge m5.5 h10; weak S, long ringing surface
4 5 6	0540	STS-2	SFT5	109 02 31 00	150	R, northern California m3.6
4 5 6	0540	STS-2	SFT5	109 18 09 10	140	odd L/R, emergent, S-P-10s
4 5 6	0540	STS-2	SFT5	109 21 14 50	6070	T, Indonesia m6.0 h82; PPP PKiKP SKS Sdiff SP/PS SS SKKS, several surface modes
4 5 6	0540	STS-2	SFT5	110 01 34 15	165	R, S-P-35s
4 5 6	0540	STS-2	SFT5	110 05 38 45	150	R, California-Nevada border d1.9
4 5 6	0540	STS-2	SFT5	110 08 25 45	3615	weak T, MacQuarie m? h10; surface wave only
4 5 6	0540	STS-2	SFT5	110 12 38 10	95	small R, S-P-10s
4 5 6	0540	STS-2	SFT5	110 12 43 30	105	R, S-P-10s
4 5 6	0540	STS-2	SFT5	110 16 36 30	690	small T, Fiji m5.6 h592; P, very small S
4 5 6	0540	STS-2	SFT5	110 20 56 30	930	Calibration
4 5 6	0540	STS-2	SFT5	110 23 53 10	200	small R? S-P-15s
1 2 3	0547	SV/H-1	SFT5	110 23 53 10	200	...
4 5 6	0540	STS-2	SFT5	111 01 38 00	135	small R or V, S-P-13s
1 2 3	0547	SV/H-1	SFT5	111 01 38 00	135	...
4 5 6	0540	STS-2	SFT5	111 10 06 30	150	small R, S-P-26s
1 2 3	0547	SV/H-1	SFT5	111 10 06 30	150	...
4 5 6	0540	STS-2	SFT5	111 15 45 15	105	small R (V?), S-P-15s
1 2 3	0547	SV/H-1	SFT5	111 15 45 15	105	...

Table 3 (continued)

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4 5 6 1 2 3	0540 0547	STS-2 SV/H-1	SFT5 SFT5	112 00 27 30 112 00 27 30	3270 3270	R, S-P~60s, southern California ...
4 5 6 1 2 3	0540 0547	STS-2 SV/H-1	SFT5 SFT5	112 03 32 00 112 03 32 00	195 195	R, no S?, northern California ...
4 5 6 1 2 3	0540 0547	STS-2 SV/H-1	SFT5 SFT5	112 05 55 45 112 05 55 45	135 135	R, S-P~23s ...
4 5 6 1 2 3	0540 0547	STS-2 SV/H-1	SFT5 SFT5	112 06 37 00 112 06 37 00	90 90	R, S-P~10s ...
4 5 6 1 2 3	0540 0547	STS-2 SV/H-1	SFT5 SFT5	114 03 17 15 114 03 17 15	105 105	very small R, S-P~13s ...
4 5 6 1 2 3	0540 0547	STS-2 SV/H-1	SFT5 SFT5	114 06 22 30 114 06 22 30	120 120	R, S-P~13s ...
4 5 6 1 2 3	0540 0547	STS-2 SV/H-1	SFT5 SFT5	114 10 04 15 114 10 04 15	2565 2565	T, Fiji m5.4 h599; P S+SKS sS sSKS, nice little event ...
4 5 6 1 2 3	0540 0547	STS-2 SV/H-1	SFT5 SFT5	114 19 07 45 114 19 07 45	75 75	small L, nil S-P ...
4 5 6 1 2 3	0540 0547	STS-2 SV/H-1	SFT5 SFT5	115 09 31 00 115 09 31 00	480 480	large R, western Arizona m5.0 h10 d7.62 ...
4 5 6 1 2 3	0540 0547	STS-2 SV/H-1	SFT5 SFT5	115 18 03 30 115 18 03 30	2145 2145	small T, Chile m? h22; only surface ...
4 5 6 1 2 3	0540 0547	STS-2 SV/H-1	SFT5 SFT5	115 23 01 30 115 23 01 30	120 120	very small R, S-P~24s ...
4 5 6 1 2 3	0540 0547	STS-2 SV/H-1	SFT5 SFT5	116 14 58 00 116 14 58 00	135 135	R, S-P~36s ...
4 5 6 1 2 3	0540 0547	STS-2 SV/H-1	SFT5 SFT5	117 22 14 15 117 22 14 15	90 90	small L, S-P~6s ...
4 5 6 1 2 3	0540 0547	STS-2 SV/H-1	SFT5 SFT5	118 02 41 30 118 02 41 30	1350 1350	very small T, Kuril m5.2 h99; very weak S, SKS, others? ...
4 5 6 1 2 3	0540 0547	STS-2 SV/H-1	SFT5 SFT5	119 08 22 15 119 08 22 15	975 975	nice large R, western Arizona m5.4 h10 d7.64 ...
4 5 6 1 2 3	0540 0547	STS-2 SV/H-1	SFT5 SFT5	119 11 20 45 119 11 20 45	120 120	R, S-P~23s ...
4 5 6 1 2 3	0540 0547	STS-2 SV/H-1	SFT5 SFT5	119 12 22 45 119 12 22 45	195 195	nice large R, central California m? h5 d1.82, S-P~25s ...
4 5 6 1 2 3	0540 0547	STS-2 SV/H-1	SFT5 SFT5	120 12 08 00 120 12 08 00	90 90	small L (or V?), S-P~9s ...
4 5 6 1 2 3	0540 0547	STS-2 SV/H-1	SFT5 SFT5	120 19 24 15 120 19 24 15	90 90	nice L, S-P~3s ...

Table 3 (continued)

DAS Channels V N E	DAS S/N	Sensor Type	Site Name	Start Time (day hr min sec)	Length (s)	Event description(s) (L,R,T,V= Local, Regional, Teleseismic, Vehicular)
4 5 6	0540	STS-2	SFT5	121 00 18 00	75	small L or V or rock fall; only one phase
1 2 3	0547	SV/H-1	SFT5	121 00 18 00	75	...
4 5 6	0540	STS-2	SFT5	121 06 48 30	210	R, central California m? h10 d1.14; S-P-15s
1 2 3	0547	SV/H-1	SFT5	121 06 48 30	210	...
4 5 6	0540	STS-2	SFT5	121 18 24 30	150	small R? V?, S-P-32s
1 2 3	0547	SV/H-1	SFT5	121 18 24 30	150	...
4 5 6	0540	STS-2	SFT5	122 09 28 45	225	R, central California m? h10 d1.71
1 2 3	0547	SV/H-1	SFT5	122 09 28 45	225	...
4 5 6	0540	STS-2	SFT5	122 11 41 30	7710	large T, Sandwich m6.2 h33; SS+/- P'P' SKKP/PKKS long surface
1 2 3	0547	SV/H-1	SFT5	122 11 41 30	7710	...
4 5 6	0540	STS-2	SFT5	122 15 36 45	735	weak T, Tonga m5.6 h122; OK P, weak S
1 2 3	0547	SV/H-1	SFT5	122 15 36 45	735	...
4 5 6	0540	STS-2	SFT5	122 19 16 45	120	small R, S-P-14s
1 2 3	0547	SV/H-1	SFT5	122 19 16 45	120	...
4 5 6	0540	STS-2	SFT5	122 20 05 00	180	R, no S?
1 2 3	0547	SV/H-1	SFT5	122 20 05 00	180	...
4 5 6	0540	STS-2	SFT5	123 12 07 15	255	R, northern California m? h5 d2.14
1 2 3	0547	SV/H-1	SFT5	123 12 07 15	255	...
4 5 6	0540	STS-2	SFT5	123 12 48 15	105	L, S-P-7s
1 2 3	0547	SV/H-1	SFT5	123 12 48 15	105	...
4 5 6	0540	STS-2	SFT5	123 21 20 00	135	small distal R?
1 2 3	0547	SV/H-1	SFT5	123 21 20 00	135	...
4 5 6	0540	STS-2	SFT5	124 03 57 30	150	R, S-P-14s
1 2 3	0547	SV/H-1	SFT5	124 03 57 30	150	...
4 5 6	0540	STS-2	SFT5	125 21 19 00	990	Calibration
1 2 3	0547	SV/H-1	SFT5	125 22 04 00	210	Calibration
1 2 3	0547	SV/H-1	SFT5	126 02 40 30	90	small L, S-P-3
1 2 3	0547	SV/H-1	SFT5	126 03 13 15	165	small R or V, S-P-17
1 2 3	0547	SV/H-1	SFT5	126 10 49 45	150	small R (and foreshock?), S-P-12
1 2 3	0547	SV/H-1	SFT5	126 13 12 00	900	T, Brazil m5.9 h586 d65; P PCP P coda S Scoda
1 2 3	0547	SV/H-1	SFT5	126 20 09 30	90	very small L?, S-P-0
1 2 3	0547	SV/H-1	SFT5	126 20 47 45	105	small R?, S-P-10
1 2 3	0547	SV/H-1	SFT5	127 14 54 30	90	small L, S-P-7
4 5 6	0540	STS-2	SFT2	128 03 16 30	930	Calibration
4 5 6	0540	STS-2	SFT2	128 11 58 30	150	very small R, southern California m? h10 d4.4
1 2 3	0547	SV/H-1	SFT5	128 11 58 30	180	extremely small ...

Table 3 (continued)

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1 2 3	0547	SV/H-1	SFT5	128 13 48 00	180	R, central California m? h10 d0.7, S-P-10
4 5 6	0540	STS-2	SFT2	128 13 48 00	180	... S-P-11
4 5 6	0540	STS-2	SFT2	128 20 26 00	90	small L, S-P-5
1 2 3	0547	SV/H-1	SFT5	128 20 26 00	90	... S-P-8
4 5 6	0540	STS-2	SFT2	129 09 24 00	1200	very small T, Guatemala m4.6 h71 d36; small surface wave only
1 2 3	0547	SV/H-1	SFT5	129 09 24 00	1200	...
4 5 6	0540	STS-2	SFT2	129 12 03 00	90	very small L?, or V?, S-P-3
1 2 3	0547	SV/H-1	SFT5	129 12 03 00	90	very small R, S-P-10
4 5 6	0540	STS-2	SFT2	129 12 07 15	75	very small L?, low frequency
1 2 3	0547	SV/H-1	SFT5	129 12 07 15	90	...
1 2 3	0547	SV/H-1	SFT5	129 12 33 45	100	very small L?, S-P-0?
4 5 6	0540	STS-2	SFT2	129 16 00 00	7200	Day noise sample, 9:00-11:00 am local
1 2 3	0547	SV/H-1	SFT5	129 22 18 00	480	small R, Oregon m4.8 h10 d8.1
4 5 6	0540	STS-2	SFT2	129 22 18 00	480	...
1 2 3	0547	SV/H-1	SFT5	130 00 29 45	110	small L?, S-P-5
4 5 6	0540	STS-2	SFT2	130 00 29 45	110	...
4 5 6	0540	STS-2	SFT2	130 04 15 45	2715	small T, East Pacific Rise m4.8 h10 d90; surface wave only
1 2 3	0547	SV/H-1	SFT5	130 04 15 45	2715	...
4 5 6	0540	STS-2	SFT2	130 06 49 15	120	small R, northern California m? h35 d3.9
1 2 3	0547	SV/H-1	SFT5	130 06 49 15	150	extremely small ...
1 2 3	0547	SV/H-1	SFT5	130 07 21 40	110	small L, S-P-9
4 5 6	0540	STS-2	SFT2	130 07 21 40	110	very small L or R, S-P-10
4 5 6	0540	STS-2	SFT2	130 08 10 00	7200	Night noise sample, 1:10-3:10 am local
1 2 3	0547	SV/H-1	SFT5	130 15 40 00	150	R, central California m? h10 d0.8, S-P-14
4 5 6	0540	STS-2	SFT2	130 15 40 00	150	... S-P-24
4 5 6	0540	STS-2	SFT2	131 02 58 20	1240	very small T, Galapagos m4.9 h10 d40; only weak surface wave
1 2 3	0547	SV/H-1	SFT5	131 02 58 20	1240	...
4 5 6	0540	STS-2	SFT2	131 03 44 40	200	2*L, S-P-6-7
1 2 3	0547	SV/H-1	SFT5	131 03 44 40	200	2*R, S-P-11
1 2 3	0547	SV/H-1	SFT5	131 04 16 30	90	very small L
4 5 6	0540	STS-2	SFT2	131 04 16 30	90	... S-P-1.5
4 5 6	0540	STS-2	SFT2	131 07 42 10	110	R, S-P-10
1 2 3	0547	SV/H-1	SFT5	131 07 42 10	110	... S-P-15

Table 3 (continued)

DAS Channels V N E	DAS S/N	Sensor Type	Site Name	Start Time (day hr min sec)	Length (s)	Event description(s) (L,R,T,V= Local, Regional, Teleseismic, Vehicular)
4 5 6 1 2 3	0540 0547	STS-2 SV/H-1	SFT2 SFT5	131 10 09 40 131 10 09 40	110 110	L, S-P-7 R, S-P-12
4 5 6	0540	STS-2	SFT2	131 10 32 00	75	very small L, S-P-0
4 5 6 1 2 3	0540 0547	STS-2 SV/H-1	SFT2 SFT5	131 15 58 45 131 15 58 45	75 90	small L, S-P-7 very small L, S-P-?
4 5 6 1 2 3	0540 0547	STS-2 SV/H-1	SFT2 SFT5	131 16 36 30 131 16 36 30	210 210	small L, S-P-6, and very small L (0.1 of amplitude) ... R, S-P-11, ... R ...
4 5 6 1 2 3	0540 0547	STS-2 SV/H-1	SFT2 SFT5	131 18 39 45 131 18 39 45	8715 8715	large T, Mindanao m6.1 h33 d103; P PP (ps)SKS, PS, many others, long surface wave ...
1 2 3 4 5 6	0547 0540	SV/H-1 STS-2	SFT5 SFT2	131 23 32 00 131 23 32 00	120 120	small R? or V?, S-P-22 very small R, S-P-?
4 5 6 1 2 3	0540 0547	STS-2 SV/H-1	SFT2 SFT5	132 00 47 30 132 00 47 30	240 240	small R, southern California m? h5 d4.4 ...
4 5 6 1 2 3	0540 0547	STS-2 SV/H-1	SFT2 SFT5	132 03 08 30 132 03 08 30	135 135	nice L, S-P-3 ... S-P-6
1 2 3 4 5 6	0547 0540	SV/H-1 STS-2	SFT5 SFT2	132 12 45 40 132 12 45 40	100 100	small L, S-P-6 ... S-P-5?
4 5 6 1 2 3	0540 0547	STS-2 SV/H-1	SFT2 SFT5	132 12 55 15 132 12 55 15	90 90	small L, S-P-0? very small L, S-P-0?
4 5 6 1 2 3	0540 0547	STS-2 SV/H-1	SFT2 SFT5	132 14 19 20 132 14 19 20	100 120	R, S-P-20 very small R, S-P-20?
4 5 6 1 2 3	0540 0547	STS-2 SV/H-1	SFT2 SFT5	132 17 44 45 132 17 44 45	105 105	small R, S-P-11 very small R, S-P-16
1 2 3 4 5 6	0547 0540	SV/H-1 STS-2	SFT5 SFT2	132 22 45 15 132 22 45 15	150 150	small R?, S-P-33 very small R, S-P-?
4 5 6 1 2 3	0540 0547	STS-2 SV/H-1	SFT2 SFT5	133 05 37 00 133 05 37 00	105 105	L, S-P-1 L, S-P-6
4 5 6 1 2 3	0540 0547	STS-2 SV/H-1	SFT2 SFT5	133 05 41 00 133 05 41 00	90 90	L, S-P-1 L?, S-P-1
4 5 6 1 2 3	0540 0547	STS-2 SV/H-1	SFT2 SFT5	133 11 09 15 133 11 09 15	90 90	small L, S-P-4 very small L, S-P-6
4 5 6 1 2 3	0540 0547	STS-2 SV/H-1	SFT2 SFT5	133 11 45 40 133 11 45 40	125 125	L, S-P-5 small L, S-P-6
4 5 6 1 2 3	0540 0547	STS-2 SV/H-1	SFT2 SFT5	133 12 05 00 133 12 05 00	4380 4380	large T, Alaska m6.4 h34 d32; strong P S surface ...
1 2 3 4 5 6	0547 0540	SV/H-1 STS-2	SFT5 SFT2	133 15 49 00 133 15 49 30	180 120	R, S-P-28, and aftershock? R, S-P-23

Table 3 (continued)

DAS Channels V N E	DAS S/N	Sensor Type	Site Name	Start Time (day hr min sec)	Length (s)	Event description(s) (L,R,T,V= Local, Regional, Telesismic, Vehicular)
4 5 6	0540	STS-2	SFT2	133 19 17 45	75	very small L? or V?
1 2 3	0547	SV/H-1	SFT5	133 20 27 30	180	R, S-P-19?
4 5 6	0540	STS-2	SFT2	133 20 27 30	180	R?
4 5 6	0540	STS-2	SFT2	133 20 54 55	110	L, S-P-6
1 2 3	0547	SV/H-1	SFT5	133 20 54 55	140	very small R, S-P-12
4 5 6	0540	STS-2	SFT2	134 04 14 15	75	small L, S-P-3
1 2 3	0547	SV/H-1	SFT5	134 04 14 15	90	extremely small L, S-P-?
4 5 6	0540	STS-2	SFT2	134 04 50 30	90	small L, S-P-1?
1 2 3	0547	SV/H-1	SFT5	134 04 50 30	90	extremely small L?, S-P-?
4 5 6	0540	STS-2	SFT2	134 12 48 00	135	small R, S-P-19
1 2 3	0547	SV/H-1	SFT5	134 12 48 00	135	very small R, S-P-18
1 2 3	0547	SV/H-1	SFT5	134 17 24 20	210	small R?, S-P-25?
4 5 6	0540	STS-2	SFT2	134 17 24 20	210	very small R, S-P-?
4 5 6	0540	STS-2	SFT2	134 17 46 30	105	small R, S-P-10
1 2 3	0547	SV/H-1	SFT5	134 17 46 30	105	... S-P-12
1 2 3	0547	SV/H-1	SFT5	134 20 43 45	75	very small L?, S-P-?
4 5 6	0540	STS-2	SFT2	134 22 54 15	105	2(?)*L, S-P-?
1 2 3	0547	SV/H-1	SFT5	134 22 54 15	180	R, S-P-13
4 5 6	0540	STS-2	SFT2	134 23 45 00	195	L, S-P-7
1 2 3	0547	SV/H-1	SFT5	134 23 45 00	195	R, S-P-10
4 5 6	0540	STS-2	SFT2	135 00 31 30	120	L, S-P-6?, emergent and complex
1 2 3	0547	SV/H-1	SFT5	135 00 31 30	180	R, S-P-11
4 5 6	0540	STS-2	SFT2	135 00 43 00	135	L, S-P-6?, emergent and complex
1 2 3	0547	SV/H-1	SFT5	135 00 43 00	135	L, S-P-9
1 2 3	0547	SV/H-1	SFT5	135 00 52 20	90	small L, S-P-8
4 5 6	0540	STS-2	SFT2	135 00 52 20	90	small L?, S-P-5?
1 2 3	0547	SV/H-1	SFT5	135 01 01 20	120	2*L, S-P-8
4 5 6	0540	STS-2	SFT2	135 01 01 20	120	L's?
4 5 6	0540	STS-2	SFT2	135 01 15 15	105	L?, S-P-6
1 2 3	0547	SV/H-1	SFT5	135 01 15 15	105	R, S-P-10
4 5 6	0540	STS-2	SFT2	135 03 14 30	2250	2*T, Mexico m5.8-h33 d29 and m5.9 h33 d29; many phases and mixed
1 2 3	0547	SV/H-1	SFT5	135 03 14 30	2250	...
4 5 6	0540	STS-2	SFT2	135 04 26 20	700	small T, Mexico-Guatemala m4.8 h132 d34; only P
1 2 3	0547	SV/H-1	SFT5	135 04 26 20	700	...
4 5 6	0540	STS-2	SFT2	135 05 35 00	3810	small T, Kermadec m5.3 h33 d84; only P and surface (and aftershock?)
1 2 3	0547	SV/H-1	SFT5	135 05 35 00	3810	...

Table 3 (continued)

DAS Channels V N E	DAS S/N	Sensor Type	Site Name	Start Time (day hr min sec)	Length (s)	Event description(s) (L,R,T,V= Local, Regional, Teleseismic, Vehicular)
1 2 3	0547	SV/H-1	SFT5	135 08 18 35	205	R, California-Nevada border, m? h5 d1.9; S-P-25
4 5 6	0540	STS-2	SFT2	135 08 18 35	205	... S-P-30
1 2 3	0547	SV/H-1	SFT5	135 13 42 30	150	R? or V?, S-P-32
4 5 6	0540	STS-2	SFT2	135 18 49 35	90	L?, S-P-6
1 2 3	0547	SV/H-1	SFT5	135 18 49 35	90	R, S-P-10
4 5 6	0540	STS-2	SFT2	135 20 51 30	2820	small T, Pac-Ant Ridge m5.2 h10 d93; surface wave only
1 2 3	0547	SV/H-1	SFT5	135 20 51 30	2820	...
4 5 6	0540	STS-2	SFT2	135 21 39 00	75	very small L?
1 2 3	0547	SV/H-1	SFT5	135 21 39 00	75	...
4 5 6	0540	STS-2	SFT2	135 21 59 00	4260	large T, Andreanof m6.2 h33 d42; strong P S SS surface, also PcP+/-PP, 3 small aftershocks
1 2 3	0547	SV/H-1	SFT5	135 21 59 00	4260	...
1 2 3	0547	SV/H-1	SFT5	136 03 27 00	90	very small L?, S-P-?
1 2 3	0547	SV/H-1	SFT5	136 03 45 10	230	R, California-Nevada border, m? h5 d3.3; S-P-43
4 5 6	0540	STS-2	SFT2	136 03 45 10	230	small ... S-P-?
4 5 6	0540	STS-2	SFT2	136 06 40 00	1500	extremely small T, Mexico m4.6 h81 d35; weak surface wave only (barely worth keeping)
1 2 3	0547	SV/H-1	SFT5	136 06 40 00	1500	...
4 5 6	0540	STS-2	SFT2	136 09 31 45	1395	extremely small T, Mexico m4.6 h33 d35; surface wave only
1 2 3	0547	SV/H-1	SFT5	136 09 31 45	1395	...
4 5 6	0540	STS-2	SFT2	136 10 00 45	75	small L, S-P-2
1 2 3	0547	SV/H-1	SFT5	136 10 00 45	90	very small L, S-P-?
4 5 6	0540	STS-2	SFT2	136 15 33 30	75	very small L?
1 2 3	0547	SV/H-1	SFT5	136 15 33 30	75	extremely small L?
4 5 6	0540	STS-2	SFT2	136 20 00 20	100	L, S-P-5
1 2 3	0547	SV/H-1	SFT5	136 20 00 20	100	small L, S-P-8
4 5 6	0540	STS-2	SFT2	136 21 55 00	10380	large T, Tonga m6.1 h33 d72; strong P S, OK SKS, SS?, long surface with 360-72 degree round trip
1 2 3	0547	SV/H-1	SFT5	136 21 55 00	10380	...
1 2 3	0547	SV/H-1	SFT5	137 01 32 45	180	small R?
4 5 6	0540	STS-2	SFT2	137 01 32 45	180	very small R
1 2 3	0547	SV/H-1	SFT5	137 04 22 05	90	small L, S-P-9
4 5 6	0540	STS-2	SFT2	137 04 22 05	90	... S-P-6

Table 3 (continued)

DAS Channels V N E	DAS S/N	Sensor Type	Site Name	Start Time (day hr min sec)	Length (s)	Event description(s) (L,R,T,V= Local, Regional, Teleseismic, Vehicular)
4 5 6	0540	STS-2	SFT2	137 06 11 30	930	small T, AK m5.5 h33 d31; S and surface wave
1 2 3	0547	SV/H-1	SFT5	137 06 11 30	930	...
1 2 3	0547	SV/H-1	SFT5	137 06 30 45	150	small R, S-P-12
4 5 6	0540	STS-2	SFT2	137 06 30 45	150	... S-P-?
1 2 3	0547	SV/H-1	SFT5	137 08 45 25	255	R, Nevada m? h5 d3.3, S-P-44
4 5 6	0540	STS-2	SFT2	137 08 45 25	255	... S-P-53
1 2 3	0547	SV/H-1	SFT5	137 10 48 25	60	L?, S-P-0?
4 5 6	0540	STS-2	SFT2	137 10 57 40	95	L, S-P-5
1 2 3	0547	SV/H-1	SFT5	137 10 57 40	95	L, S-P-9
4 5 6	0540	STS-2	SFT2	137 16 15 00	5520	T, New Britain m5.8 h33 d91; P PP S-group(SKSac...) SP/PS SS SKKP/PKKS LR/LG
1 2 3	0547	SV/H-1	SFT5	137 16 15 00	5520	...
1 2 3	0547	SV/H-1	SFT5	137 18 10 30	90	very small L?, S-P-?
1 2 3	0547	SV/H-1	SFT5	137 23 09 15	75	very small L, S-P-0?
1 2 3	0547	SV/H-1	SFT5	137 23 21 00	3720	R, California-Nevada border (Eureka Valley) m6.0 h7 d2.8; S-P-42s and several large aftershocks
1 2 3	0547	SV/H-1	SFT5	138 00 56 30	240	R, California-Nevada border (Eureka Valley), m3.2 aftershock
1 2 3	0547	SV/H-1	SFT5	138 01 03 30	945	R, California-Nevada border (Eureka Valley), m4.5 aftershock
1 2 3	0547	SV/H-1	SFT5	138 01 22 20	745	R, California-Nevada border (Eureka Valley), several aftershocks
1 2 3	0547	SV/H-1	SFT5	138 01 44 00	180	R, California-Nevada border (Eureka Valley), aftershock
1 2 3	0547	SV/H-1	SFT5	138 01 53 30	180	Calibration
Spring-Summer Break						
1 2 3	7062	SV/H-1	SFT2	191 01 55 44	76	small CalNet L/R, m1.2 d0.18 h4.2, 37.22N-121.61E
1 2 3	7064	SV/H-1	SFT5	191 15 35 00	120	small R; S-P-15s
1 2 3	7062	SV/H-1	SFT2	191 15 35 00	120	
1 2 3	7064	SV/H-1	SFT5	191 20 48 02	1440	very small T, @COSTA RICA m5.2/5.4 d44 h33; P's only
1 2 3	7062	SV/H-1	SFT2	191 20 48 02	1440	... nothing seen
1 2 3	7062	SV/H-1	SFT2	192 09 30 00	120	small R; S-P-10s, m2.3 d0.79 h8.6, @36.58N-121.14E
1 2 3	7064	SV/H-1	SFT5	192 09 30 00	120	

Table 3 (continued)

DAS Channels V N E	DAS S/N	Sensor Type	Site Name	Start Time (day hr min sec)	Length (s)	Event description(s) (L,R,T,V= Local, Regional, Teleseismic, Vehicular)
1 2 3	7062	SV/H-1	SFT2	192 12 12 00	90	very small R; S-P-13s; m2.1 d2.04 h13.6, @38.04N-118.83E
1 2 3	7064	SV/H-1	SFT5	192 12 12 00	90	...
1 2 3	7062	SV/H-1	SFT2	192 13 47 30	2250	small T; NORTHERN CHILE m6.1 h33 d79; P's, S's, small L
1 2 3	7064	SV/H-1	SFT5	192 13 47 30	2250	...
1 2 3	7062	SV/H-1	SFT2	192 23 41 34	55	CalNet L/R, m2.2 d2.26 h2.9, @38.63N-119.66E; not seen
1 2 3	7064	SV/H-1	SFT5	192 23 41 34	55	... d1.73 ... was seen
1 2 3	7062	SV/H-1	SFT2	193 13 27 30	3600	nice T; HOKKAIDO, JAPAN m6.6 h17 d71; P's S's, relatively small L
1 2 3	7064	SV/H-1	SFT5	193 13 27 30	3600	...
1 2 3	7062	SV/H-1	SFT2	193 14 55 20	3000	T; SEA OF JAPAN m6.0 h33 d71; small P, no S, L
1 2 3	7064	SV/H-1	SFT5	193 14 55 20	3000	...
1 2 3	7062	SV/H-1	SFT2	193 16 11 20	2020	T; HOKKAIDO; JAPAN m5.9 h33 d71; P's, no S, very small L
1 2 3	7064	SV/H-1	SFT5	193 16 11 20	2020	...
1 2 3	7062	SV/H-1	SFT2	193 18 28 20	90	CalNet L/R, m2.2 d2.28 h3.1, @38.65N-119.63E; not seen
1 2 3	7064	SV/H-1	SFT5	193 18 28 20	90	very small CalNet L/R, m2.2 d1.76 h3.1, @38.65N-119.63E
1 2 3	7062	SV/H-1	SFT2	194 18 19 31	90	very small CalNet L/R, m2.4 d1.46 h10.1, @36.25N-120.38E
1 2 3	7064	SV/H-1	SFT5	194 18 19 46	90	small CalNet L/R, m2.4 d1.47 h10.1,
1 2 3	7064	SV/H-1	SFT5	195 03 09 29	60	CalNet L/R, m2.4 d1.52 h8.3, @37.62N-119.42E
1 2 3	7062	SV/H-1	SFT2	195 03 09 29	60	...; not seen"
1 2 3	7062	SV/H-1	SFT2	195 11 57 52	45	nice L, m1.9 d0.14 h4.3, 37.37N-121.31E
1 2 3	7064	SV/H-1	SFT5	195 11 57 52	45	...
1 2 3	7062	STS-2	SFT2	196 04 14 35	310	2*nice R, m3.1 d2.27 h1.9, @38.64N-119.65E; m3.0 d2.27 h3.3
1 2 3	7064	SV/H-1	SFT5	196 04 14 35	310	
1 2 3	7062	STS-2	SFT2	196 08 08 10	80	small CalNet L/R, m2.0 d0.71 h5.7, @36.62N-121.22E
1 2 3	7064	SV/H-1	SFT5	196 08 08 14	80	... d0.89 ...
1 2 3	7064	SV/H-1	SFT5	196 14 13 50	83	small CalNet L/R, m2.6 d1.52 h8.2, @37.62N-119.42E
1 2 3	7062	STS-2	SFT2	196 14 14 00	101	... d1.96 ...

Table 3 (continued)

DAS Channels V N E	DAS S/N	Sensor Type	Site Name	Start Time (day hr min sec)	Length (s)	Event description(s) (L,R,T,V= Local, Regional, Teleseismic, Vehicular)
1 2 3	7064	SV/H-1	SFT5	196 14 35 26	83	very small CalNet L/R, m2.2 d1.51 h7.0, @37.62N-119.42E
1 2 3	7062	STS-2	SFT2	196 14 35 26	83	very small CalNet L/R, m2.2 d1.95 h7.0, @37.62N-119.42E
1 2 3	7062	STS-2	SFT2	196 17 40 42	80	CalNet L/R, m2.4 d0.17 h4.7, @37.25N-121.64E
1 2 3	7064	SV/H-1	SFT5	196 17 40 46	80	CalNet L/R, m2.4 d0.35 h4.7, @37.25N-121.64E
1 2 3	7062	STS-2	SFT2	197 13 02 19	2111	very small T, @NEAR COAST OF NICRAGUA m4.8/5.1 d41 h33; surface wave only
1 2 3	7064	STS-2	SFT5	197 13 02 19	0	† ...
1 2 3	7062	STS-2	SFT2	197 21 32 56	2884	small T, @NEAR COAST OF CENTRAL CHILE m5.3/5.2 d84 h33; S's, surface; STS-2 anomalies
1 2 3	7064	STS-2	SFT5	197 21 32 56	0	† ...
1 2 3	7062	STS-2	SFT2	198 01 46 54	2231	small T, @NEAR COAST OF CENTRAL CHILE m5.4/5.0 d82 h33; S's, surface
1 2 3	7064	STS-2	SFT5	198 01 46 54	2231	...
1 2 3	7064	STS-2	SFT5	199 23 08 26	90	CalNet L/R, m2.8 d0.94 h18.8, @37.93N-120.27E
1 2 3	7062	STS-2	SFT2	199 23 08 37	90	... d1.45 ...
1 2 3	7064	STS-2	SFT5	200 07 38 37	86	small CalNet L/R, m2.2 d1.98 h3.4, @37.54N-118.83E
1 2 3	7062	STS-2	SFT2	200 07 38 47	104	... d2.40 ...
1 2 3	7062	STS-2	SFT2	200 08 35 58	85	very small CalNet L/R, m2.3 d1.72 h6.4, @38.50N-119.54E
1 2 3	7064	STS-2	SFT5	200 08 35 58	85	...
1 2 3	7064	STS-2	SFT5	200 12 32 13	90	small CalNet L/R, m2.9 d1.21 h39.4, @37.64N-119.81E
1 2 3	7062	STS-2	SFT2	200 12 32 23	90	... d1.67 ...
1 2 3	7062	STS-2	SFT2	200 16 00 54	120	2*very small CalNet L/R, m2.6 d1.76 h2.3 and m2.3 d1.76 h2.0, @38.83N-122.80E
1 2 3	7064	STS-2	SFT5	200 16 00 54	120	...
1 2 3	7062	STS-2	SFT2	201 07 48 43	5177	nice T, @SAMOA ISLANDS REGION m5.1/5.8 d73 h33; P's, S and SKS, long, ringy surface wave
1 2 3	7064	STS-2	SFT5	201 07 48 43	5177	...
1 2 3	7062	STS-2	SFT2	201 10 59 05	80	small CalNet L/R, m2.4 d0.78 h7.6, @36.58N-121.14E
1 2 3	7064	STS-2	SFT5	201 10 59 09	80	... d0.93 ...

Table 3 (continued)

DAS Channels V N E	DAS S/N	Sensor Type	Site Name	Start Time (day hr min sec)	Length (s)	Event description(s) (L,R,T,V= Local, Regional, Teleseismic, Vehicular)
1 2 3	7062	STS-2	SFT2	201 11 57 42	90	nice CalNet L/R, m3.0 d0.35 h4.3, @37.26N-121.64E
1 2 3	7064	STS-2	SFT5	201 11 57 42	90	...
1 2 3	7064	STS-2	SFT5	201 18 56 36	86	CalNet L/R, m2.7 d1.97 h3.6, @37.57N-118.84E
1 2 3	7062	STS-2	SFT2	201 18 56 45	104	... d2.40 ...
1 2 3	7062	STS-2	SFT2	201 21 00 11	0	†... d0.59 ...
1 2 3	7064	STS-2	SFT5	201 21 00 13	79	CalNet L/R, m2.1 d0.69 h9.6, @36.82N-121.28E
1 2 3	7062	STS-2	SFT2	201 23 56 03	95	CalNet L/R, m2.0 d0.88 h7.7, @36.55N-121.15E
1 2 3	7064	STS-2	SFT5	202 00 22 00	330	2*CalNet L/R, m3.6 d3.22 h4.6, @36.13N-117.69E
1 2 3	7062	STS-2	SFT2	202 00 22 00	330	... d3.30 ...
1 2 3	7062	STS-2	SFT2	202 20 42 48	92	very small CalNet L/R, m2.1 d0.49 h0.2, @37.32N-122.10E
1 2 3	7064	STS-2	SFT5	202 20 42 52	90	... d0.64 ...
1 2 3	7062	STS-2	SFT2	202 22 12 34	3062	T, @NEAR COAST OF GUATE- MALA m5.0/5.2 d36 h33; P's S's long surface
1 2 3	7064	STS-2	SFT5	202 22 12 34	3062	...
1 2 3	7062	STS-2	SFT2	203 04 38 33	75	CalNet L/R, m1.7 d0.14 h5.1, @37.37N-121.29E
1 2 3	7064	STS-2	SFT5	203 04 38 33	75	...
1 2 3	7062	STS-2	SFT2	203 05 05 37	3500	T, @NORTHERN COLOMBIA m6.0/5.9 d55 h19; P's L/R S's sur- face; and CalNet L/R, m2.2 d0.34 h6.2, @36.87N-121.59E
1 2 3	7064	STS-2	SFT5	203 05 05 37	3500	...; and ... d0.67 ...
1 2 3	7062	STS-2	SFT2	203 06 28 18	5560	T, @SOUTHERN EAST PACIFIC RISE m5.5/5.9 d92 h10; S's long sur- face
1 2 3	7064	STS-2	SFT5	203 06 28 18	5560	...
1 2 3	7064	STS-2	SFT5	203 10 58 16	90	CalNet L/R, m2.9 d1.93 h4.1, @37.55N-118.89E
1 2 3	7062	STS-2	SFT2	203 10 58 25	103	... d2.35 ...
1 2 3	7062	STS-2	SFT2	203 12 26 33	2203	small T, @MARIANA ISLANDS REGION m5.5/0.0 d80 h127; P's sur- face
1 2 3	7064	STS-2	SFT5	203 12 26 33	2203	...
1 2 3	7064	STS-2	SFT5	204 01 31 52	90	CalNet L/R, m2.7 d1.94 h5.2, @37.55N-118.89E
1 2 3	7062	STS-2	SFT2	204 01 32 01	103	very small ... d2.36 ...

Table 3 (continued)

DAS Channels V N E	DAS S/N	Sensor Type	Site Name	Start Time (day hr min sec)	Length (s)	Event description(s) (L,R,T,V= Local, Regional, Teleseismic, Vehicular)
1 2 3	7062	STS-2	SFT2	204 06 18 20	91	small CalNet L/R, m1.8 d0.19 h5.6, @36.99N-121.70E
1 2 3	7064	STS-2	SFT5	204 06 18 29	93	... d0.59 ...
1 2 3	7062	STS-2	SFT2	204 14 30 27	95	small CalNet L/R, m2.1 d0.89 h7.1, @36.55N-121.14E
1 2 3	7064	STS-2	SFT5	204 14 30 29	95	very small ... d0.97 ...
1 2 3	7064	STS-2	SFT5	204 16 48 27	4170	very small T, @FUJI ISLANDS REGION m5.3/0.0 d77 h632; surface
1 2 3	7062	STS-2	SFT2	204 16 48 27	4170	...?
1 2 3	7064	STS-2	SFT5	205 07 29 49	101	CalNet L/R, m2.6 d1.92 h13.8, @38.07N-119.01E
1 2 3	7062	STS-2	SFT2	205 07 30 00	104	very small ... d2.41 ...
1 2 3	7062	STS-2	SFT2	205 09 44 18	91	small CalNet L/R, m1.7 d0.20 h3.1, @37.16N-121.57E
1 2 3	7064	STS-2	SFT5	205 09 44 22	92	... d0.39 ...
1 2 3	7062	STS-2	SFT2	205 13 31 35	93	small CalNet L/R, m2.1 d0.61 h10.4, @37.75N-122.12E
1 2 3	7064	STS-2	SFT5	205 13 31 36	93	very small ... d0.67 ...
1 2 3	7062	STS-2	SFT2	205 20 35 58	2800	small T, @VANUATU ISLANDS m5.4/5.3 d84 h208; S/SKS, surface
1 2 3	7064	STS-2	SFT5	205 20 35 58	2800	
1 2 3	7062	STS-2	SFT2	206 20 05 52	92	small CalNet L/R, m1.8 d0.17 h6.5, @37.24N-121.62E
1 2 3	7064	STS-2	SFT5	206 20 05 56	92	... d0.35 ...
1 2 3	7062	STS-2	SFT2	207 03 09 56	94	CalNet L/R, m2.3 d0.35 h9.2, @36.85N-121.59E
1 2 3	7064	STS-2	SFT5	207 03 10 03	94	... d0.69 ...
1 2 3	7062	STS-2	SFT2	207 17 29 05	95	small CalNet L/R, m2.2 d0.81 h10.6, @37.71N-122.55E
1 2 3	7064	STS-2	SFT5	207 17 29 09	95	... d0.99 ...
1 2 3	7064	STS-2	SFT5	207 22 01 12	100	small CalNet L/R, m2.7 d1.72 h0.0, @38.63N-119.68E
1 2 3	7062	STS-2	SFT2	207 22 01 24	103	very small ... d2.24 ...
1 2 3	7064	STS-2	SFT5	207 23 47 16	103	extremely small CalNet L/R, m2.7 d2.32 h7.7, @37.51N-118.41E
1 2 3	7062	STS-2	SFT2	207 23 47 25	106	... d2.73 ...
1 2 3	7064	STS-2	SFT5	208 11 48 48	1632	very small T, @GULF OF ALASKA m5.0/4.5 d27 h10; surface wave only
1 2 3	7062	STS-2	SFT2	208 11 48 48	1632	
1 2 3	7064	STS-2	SFT5	208 17 21 00	420	Peculiar low-frequency; probably sur- face wave of m3.6 d3.73 h7.3, @40.30N-124.50E
1 2 3	7062	STS-2	SFT2	208 17 21 00	420	very small ... d3.78 ...

Table 3 (continued)

DAS Channels V N E	DAS S/N	Sensor Type	Site Name	Start Time (day hr min sec)	Length (s)	Event description(s) (L,R,T,V= Local, Regional, Teleseismic, Vehicular)
1 2 3	7064	STS-2	SFT5	208 21 17 45	1200	CalNet L/R, m3.9 d3.72 h8.0, @40.30N-124.49E; strong surface wave
1 2 3	7062	STS-2	SFT2	208 21 17 45	1200	... d3.78 ...
1 2 3	7064	STS-2	SFT5	209 05 56 30	2070	small T, OFF COAST OF MEXICO, m5.0/4.7 d31 h10; S, good surface
1 2 3	7062	STS-2	SFT2	209 05 56 30	2070	
1 2 3	7062	STS-2	SFT2	209 07 17 26	4354	very small T, @SOLOMON ISLANDS m5.2/5.4 d86 h70; surface wave
1 2 3	7064	STS-2	SFT5	209 07 17 26	4354	...
1 2 3	7062	STS-2	SFT2	209 12 43 23	150	CalNet L/R, m1.9 d0.40 h7.0, @36.82N-121.54E and m1.3 d0.40 h6.8, @36.82N-121.54E
1 2 3	7064	STS-2	SFT5	209 12 43 30	94	small ... d0.71 ..
1 2 3	7062	STS-2	SFT2	209 18 19 41	5060	T, @SOLOMON ISLANDS m5.4/6.0 d89 h33; SKS, S, surface
1 2 3	7064	STS-2	SFT5	209 18 19 41	5060	...
1 2 3	7064	STS-2	SFT5	209 20 59 31	101	CalNet L/R, m2.7 d1.93 h2.9, @37.56N-118.89E
1 2 3	7062	STS-2	SFT2	209 20 59 41	103	very small ... d2.35 ...
1 2 3	7064	STS-2	SFT5	210 04 36 00	3000	very small T, KERMADEC ISLANDS REGION, m5.1/4.8 d84 h35; surface wave
1 2 3	7062	STS-2	SFT2	210 04 36 00	3000	...
1 2 3	7064	STS-2	SFT5	210 07 47 05	102	small CalNet L/R, m2.8 d2.11 h6.2, @37.51N-118.67E
1 2 3	7062	STS-2	SFT2	210 07 47 05	102	very small ... d2.52 ...
1 2 3	7062	STS-2	SFT2	210 08 47 45	2355	small T, NEAR COAST OF GUATE- MALA, m4.8/0.0 d37 h33; P, S?, sur- face wave
1 2 3	7064	STS-2	SFT5	210 08 47 45	2355	...
1 2 3	7064	STS-2	SFT5	210 15 51 12	106	very small CalNet L/R, m2.6 d2.83 h2.7, @37.18N-117.80E
1 2 3	7062	STS-2	SFT2	210 15 51 12	106	
1 2 3	7062	STS-2	SFT2	210 20 21 38	1083	very small T, @GUERRERO, MEX- ICO m5.0/4.2 d27 h33; surface wave
1 2 3	7064	STS-2	SFT5	210 20 21 38	1083	...
1 2 3	7062	STS-2	SFT2	210 21 35 15	94	CalNet L/R, m2.0 d0.57 h8.0, @36.77N-121.28E
1 2 3	7064	STS-2	SFT5	210 21 35 15	94	... d0.73 ...
1 2 3	7062	STS-2	SFT2	211 01 07 48	1812	small T, @OFF COAST OF MEX- ICO m4.9/5.2 d33 h10; S, surface wave
1 2 3	7064	STS-2	SFT5	211 01 07 48	1812	...

Table 3 (continued)

DAS Channels V N E	DAS S/N	Sensor Type	Site Name	Start Time (day hr min sec)	Length (s)	Event description(s) (L,R,T,V= Local, Regional, Telesismic, Vehicular)
1 2 3	7064	STS-2	SFT5	211 03 42 35	150	small CalNet L/R, m2.8 d2.74 h1.8, @37.21N-117.90E
1 2 3	7062	STS-2	SFT2	211 03 42 35	150	very small ... d3.12 ...
1 2 3	7064	STS-2	SFT5	211 07 26 10	120	CalNet L/R, m3.0 d1.76 h4.2, @38.69N-119.66E
1 2 3	7062	STS-2	SFT2	211 07 26 10	120	small ... d2.29 ...
1 2 3	7062	STS-2	SFT2	211 18 23 23	94	CalNet L/R, m2.0 d0.40 h6.7, @36.82N-121.54E
1 2 3	7064	STS-2	SFT5	211 18 23 23	94	small ... d0.71 ...
1 2 3	7062	STS-2	SFT2	212 09 37 40	1940	very small T, NORTHERN COLOM- BIA, m4.3/0.0 d53 h150; surface wave
1 2 3	7064	STS-2	SFT5	212 09 37 40	1940	...
1 2 3	7064	STS-2	SFT5	212 23 49 19	92	CalNet L/R, m2.7 d0.35 h7.2, @37.38N-121.73E (not seen)
1 2 3	7062	STS-2	SFT2	212 23 49 19	92	very small ... d0.35 ... (poor)
1 2 3	7062	STS-2	SFT2	213 01 16 08	2390	very small T, LEEWARD ISLANDS, m4.5 d56 h69; small surface wave
1 2 3	7064	STS-2	SFT5	213 01 16 08	2390	...
1 2 3	7064	STS-2	SFT5	213 20 41 45	390	small CalNet L/R, m3.7 d3.73 h8.0, @40.31N-124.49E; P, surface wave
1 2 3	7062	STS-2	SFT2	213 20 41 45	390	... d3.79 ...
1 2 3	7062	STS-2	SFT2	214 01 53 00	150	small CalNet L/R, m3.3 d3.78 h7.9, @40.31N-124.48E (missed on SFT5)
1 2 3	7062	STS-2	SFT2	214 03 24 47	2830	T, @KYUSHU, JAPAN m5.5/5.2 d84 h33; P?, S/SKS, small surface wave
1 2 3	7064	STS-2	SFT5	214 03 24 47	2830	...
1 2 3	7062	STS-2	SFT2	214 09 01 00	480	small CalNet L/R, m3.6 d3.72 h7.8, @40.31N-124.48E; surface wave
1 2 3	7064	STS-2	SFT5	214 09 01 00	480	...
1 2 3	7062	STS-2	SFT2	214 10 21 00	300	small CalNet L/R, m3.5 d3.78 h7.6, @40.31N-124.48E (missed on SFT5)
1 2 3	7062	STS-2	SFT2	215 07 22 37	5400	nice T, @QUEEN CHARLOTTE ISLANDS REGION m5.5/5.9 d15 h10; P, S, long surface wave
1 2 3	7064	STS-2	SFT5	215 07 22 37	5400	...
1 2 3	7062	STS-2	SFT2	215 12 56 35	4105	T, @EGYPT m6.1/5.7 d110 h10 (SKS?) and @QUEEN CHARLOTTE ISLANDS REGION m5.0/5.2 d15 h10 (larger signal; P, surface)
1 2 3	7064	STS-2	SFT5	215 12 56 35	4105	...

Table 3 (continued)

DAS Channels V N E	DAS S/N	Sensor Type	Site Name	Start Time (day hr min sec)	Length (s)	Event description(s) (L,R,T,V= Local, Regional, Teleseismic, Vehicular)
1 2 3	7062	STS-2	SFT2	215 17 45 25	95	very small CalNet L/R, m2.0 d0.96 h6.8, @36.56N-121.15E
1 2 3	7064	STS-2	SFT5	215 17 45 25	95	...
1 2 3	7062	STS-2	SFT2	216 11 46 00	9540	small T, @SOUTHERN SUMATERA, INDONESIA m6.1/6.4 d128 h33; PP, small SKS, long surface wave; (and T, @BANDA SEA m5.4/5.3 d113 h33, not seen); and T, @NEAR COAST OF NORTHERN CHILE m6.1/6.0 d79 h33, possibly seen
1 2 3	7062	STS-2	SFT2	216 14 37 02	104	small CalNet L/R, m3.0 d2.41 h9.8, @37.64N-118.84E
1 2 3	7062	STS-2	SFT2	216 20 20 07	99	small CalNet L/R, m2.7 d1.47 h4.9, @36.05N-120.60E
1 2 3	7064	STS-2	SFT5	216 20 20 07	99	very small ... d1.57 ... (seismologist at site)
1 2 3	7064	STS-2	SFT5	217 10 19 31	120	small CalNet L/R, m2.8 d2.00 h9.1, @37.55N-118.80E
1 2 3	7062	STS-2	SFT2	217 10 19 31	120	very small ... d2.43 ...
1 2 3	7064	STS-2	SFT5	217 12 05 15	5565	2 * small T, NEW BRITAIN REGION, m5.1/5.1 d91 h33; surface wave; and @FIJI ISLANDS REGION m5.3/0.0 d77 h616; P, S, SKS?, spectral-only surface wave 0.06 Hz
1 2 3	7062	STS-2	SFT2	217 12 05 15	5565	2 * very small ...; and ...; P
1 2 3	7062	STS-2	SFT2	217 18 36 44	93	small CalNet L/R, m1.9 d0.64 h9.5, @36.66N-121.29E
1 2 3	7064	STS-2	SFT5	217 18 43 58	94	small CalNet L/R, m1.9 d0.75 h0.9, @37.89N-120.51E
1 2 3	7062	STS-2	SFT2	217 18 44 10	0	†extremely small ... d1.27 ..
1 2 3	7064	STS-2	SFT5	218 00 31 45	150	CalNet L/R, m3.1 d2.06 h15.4, @39.39N-120.25E
1 2 3	7062	STS-2	SFT2	218 00 31 45	150	very small ... d2.55 ...
1 2 3	7064	STS-2	SFT5	218 11 01 42	98	small CalNet L/R, m2.6 d1.45 h8.4, @36.27N-120.36E
1 2 3	7062	STS-2	SFT2	218 11 01 42	120	... d1.46 ...
1 2 3	7064	STS-2	SFT5	218 23 34 31	93	CalNet L/R, m2.6 d0.54 h7.2, @37.61N-122.00E
1 2 3	7062	STS-2	SFT2	218 23 34 31	93	nice ... d0.48 ..
1 2 3	7062	STS-2	SFT2	219 00 12 21	6100	nice T, @NORTHEAST OF TAIWAN m6.0/0.0 d90 h158; P, pP, SKS (clearly split), S, sS, small surface wave
1 2 3	7064	STS-2	SFT5	219 00 12 21	6100	...

Table 3 (continued)

DAS Channels V N E	DAS S/N	Sensor Type	Site Name	Start Time (day hr min sec)	Length (s)	Event description(s) (L,R,T,V= Local, Regional, Teleseismic, Vehicular)
1 2 3	7062	STS-2	SFT2	219 06 16 00	1560	T, OFF COAST OF JALISCO, MEXICO m4.9/0.0 d24 h33; P, S, surface wave
1 2 3	7064	STS-2	SFT5	219 06 16 00	1560	...
1 2 3	7064	STS-2	SFT5	219 13 43 30	120	CalNet L/R, m3.5 d1.39 h18.4, @36.47N-120.17E
1 2 3	7062	STS-2	SFT2	219 13 43 30	120	... d1.48 ...
1 2 3	7062	STS-2	SFT2	219 18 03 00	15420	T, @SOUTH OF FIJI ISLANDS m6.0/0.0 d83 h560; P's, SKS/S's, non-iasp91 phases, weak surface wave; and weak CalNet L/R, m2.1 d1.39 h18.7, @36.46N-120.17E; and T, @HOKKAIDO, JAPAN REGION m6.1/5.9 d72 h33; Ps, S's, SS, core phases, long surface wave
1 2 3	7064	STS-2	SFT5	219 18 03 00	15420	...
1 2 3	7062	STS-2	SFT2	220 08 45 55	23650	T, @SOUTH OF MARIANA ISLANDS (GUAM) m7.0/8.0 d85 h61; P's, S's, SS, non-iasp91 phases, core phases, LONG surface wave (maybe with 2nd-round); and CalNet L/R, m3.8 d2.84 h0.0, @37.07N-117.80E
1 2 3	7064	STS-2	SFT5	220 08 45 55	23650	...
1 2 3	7062	STS-2	SFT2	220 20 14 40	4340	T, @MARIANA ISLANDS m5.3/5.8 d84 h60; P's, S's, core phases, surface wave
1 2 3	7064	STS-2	SFT5	220 20 14 40	4340	...
1 2 3	7064	STS-2	SFT5	221 02 19 15	195	CalNet L/R, m3.0 d2.07 h15.4, @39.39N-120.24E; and CalNet L/R, m3.0 d2.05 h17.3, @39.38N-120.26E
1 2 3	7062	STS-2	SFT2	221 02 19 15	195	small ... d2.55 ...; and very small ... d2.54 ...
1 2 3	7064	STS-2	SFT5	221 02 49 00	900	Unidentified surface wave (similar to offshore northern California)
1 2 3	7064	STS-2	SFT5	221 05 32 45	150	CalNet L/R, m3.0 d2.46 h2.5, @37.85N-118.25E
1 2 3	7064	STS-2	SFT5	221 09 26 42	4160	T, @MARIANA ISLANDS m5.3/5.5 d84 h60; P's, SKS/S, surface wave

Table 3 (continued)

DAS Channels V N E	DAS S/N	Sensor Type	Site Name	Start Time (day hr min sec)	Length (s)	Event description(s) (L,R,T,V= Local, Regional, Teleseismic, Vehicular)
1 2 3	7064	STS-2	SFT5	221 11 50 00	12300	T, @HINDU KUSH REGION, AFGHANISTAN m5.8/0.0 d105 h230; PP, SKS; and T, @HINDU KUSH REGION, AFGHANISTAN m6.3/0.0 d105 h233; Pdiff, sPdiff, PP, sPKiKP, unknown phase@13:04:30, sSKSac, unknown phase@13:11:20, core phases, unknown phase @13:17:04, unknown phase @13:26:10, unknown phase@13:27:07, unknown phase @13:32:40 (maybe odd surface wave); and small CalNet L/R, m2.1 d0.74 h18.2, @38.11N-121.88E
1 2 3	7064	STS-2	SFT5	221 21 40 18	94	CalNet L/R, m2.1 d0.69 h5.4, @36.84N-121.57E
1 2 3	7064	STS-2	SFT5	221 23 08 41	99	very small CalNet L/R, m2.1 d1.53 h12.9, @37.69N-119.41E
1 2 3	7064	STS-2	SFT5	222 01 04 57	15603	T, @OFF West COAST OF S. ISLAND, New Zealand m0.0/7.1 d105 h33; Pdiff, PKiKP/PP, SKS's, possibly sSdiff, SP/PS, core phases, large unknown phase@01:34:35, surface wave
1 2 3	7064	STS-2	SFT5	222 05 52 56	101	CalNet L/R, m2.6 d1.98 h0.1, @37.57N-118.84E
1 2 3	7064	STS-2	SFT5	222 09 04 50	12970	T, @MARIANA ISLANDS m5.5/0.0 d85 h60; P's, possibly S, weak surface wave; and T, @NORTH ISLAND, NEW ZEALAND m5.8/6.0 d95 h33; P's, PP, PKiKP, SKS/S's, SP/PS, SS, core phases, large unknown phase@10:28:50, surface wave

Annotations of the form "m5.8[6.0] d95 h33" mean, for example, "body- [and surface-] wave magnitude of 5.8 [6.0], distance of 95°, hypocentral depth of 33 km". The order of these groups is variable, but the units are consistent. For CalNet events, the coda M_L magnitude is given.

"?" means uncertainty.

"Event description(s)" annotation are somewhat inconsistent over the duration of the experiment, tending toward more detail (and more of it automatically generated) as time went on.

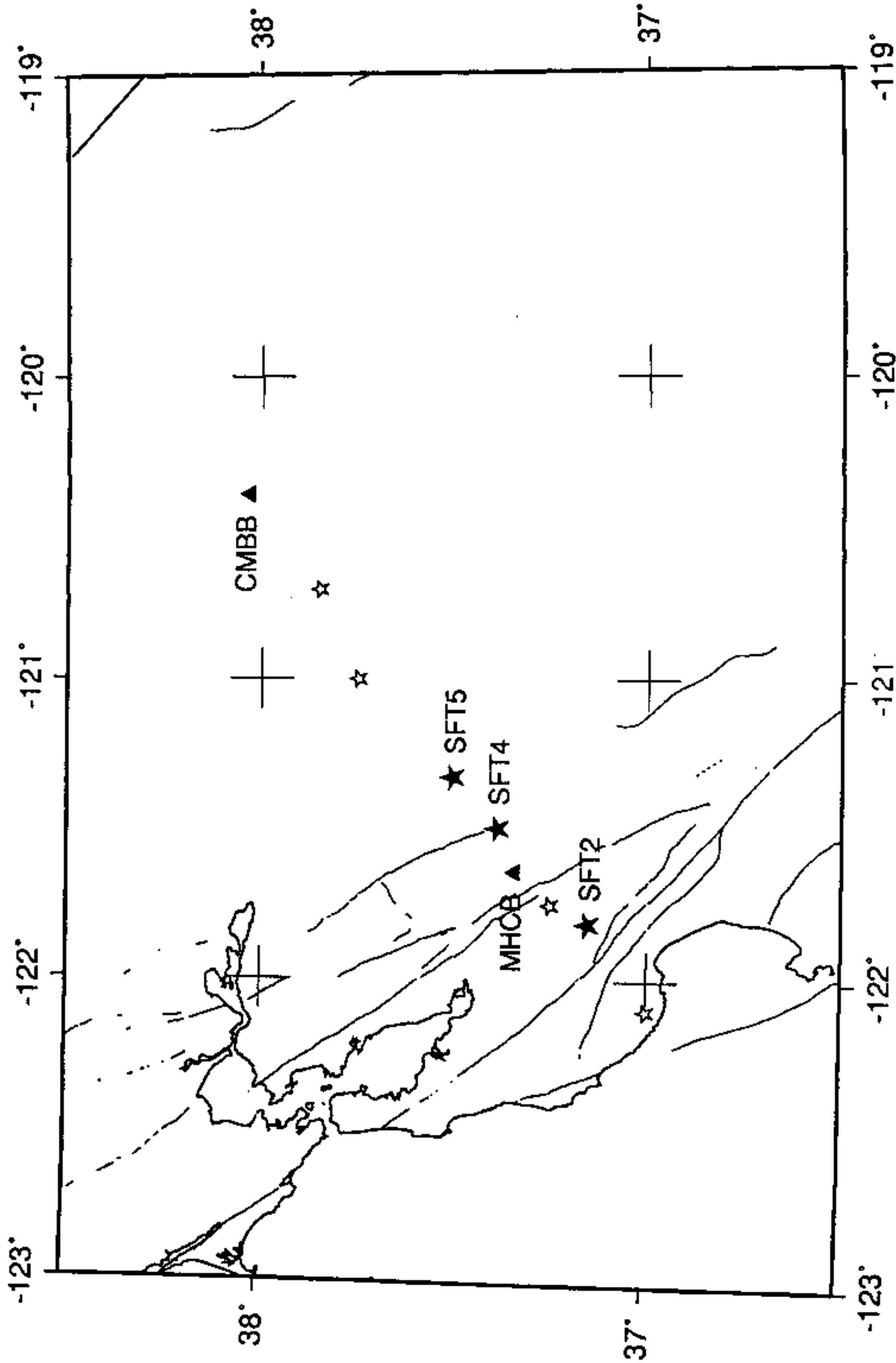


Figure 1a. Broadband sites along our seismograph array. Solid stars are the three existing USGS vaults. Open stars are the remaining sites proposed but not yet built. Solid triangles are the two U.C. Berkeley broadband sites within the array.

BROADBAND VAULT DESIGN

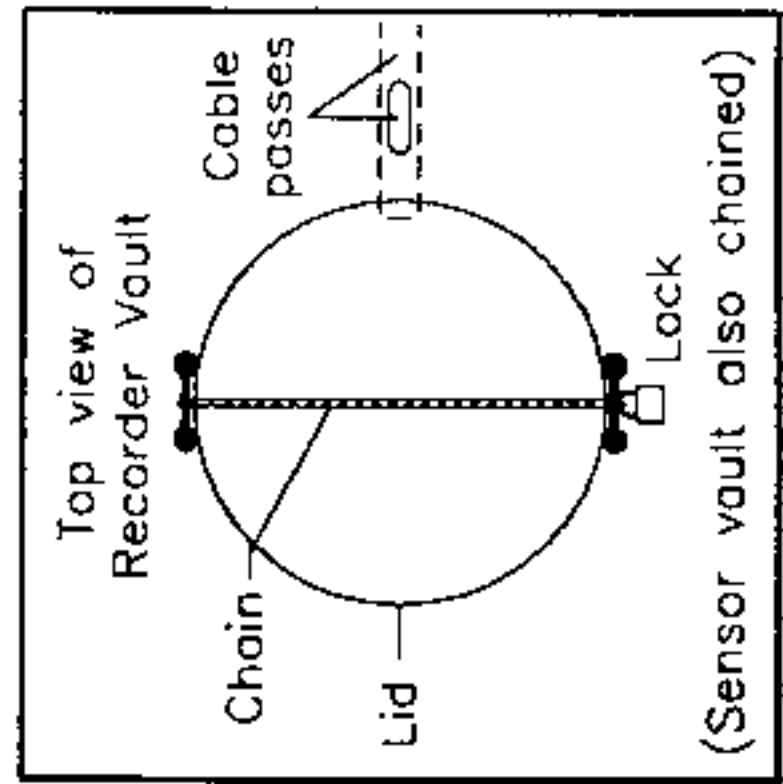
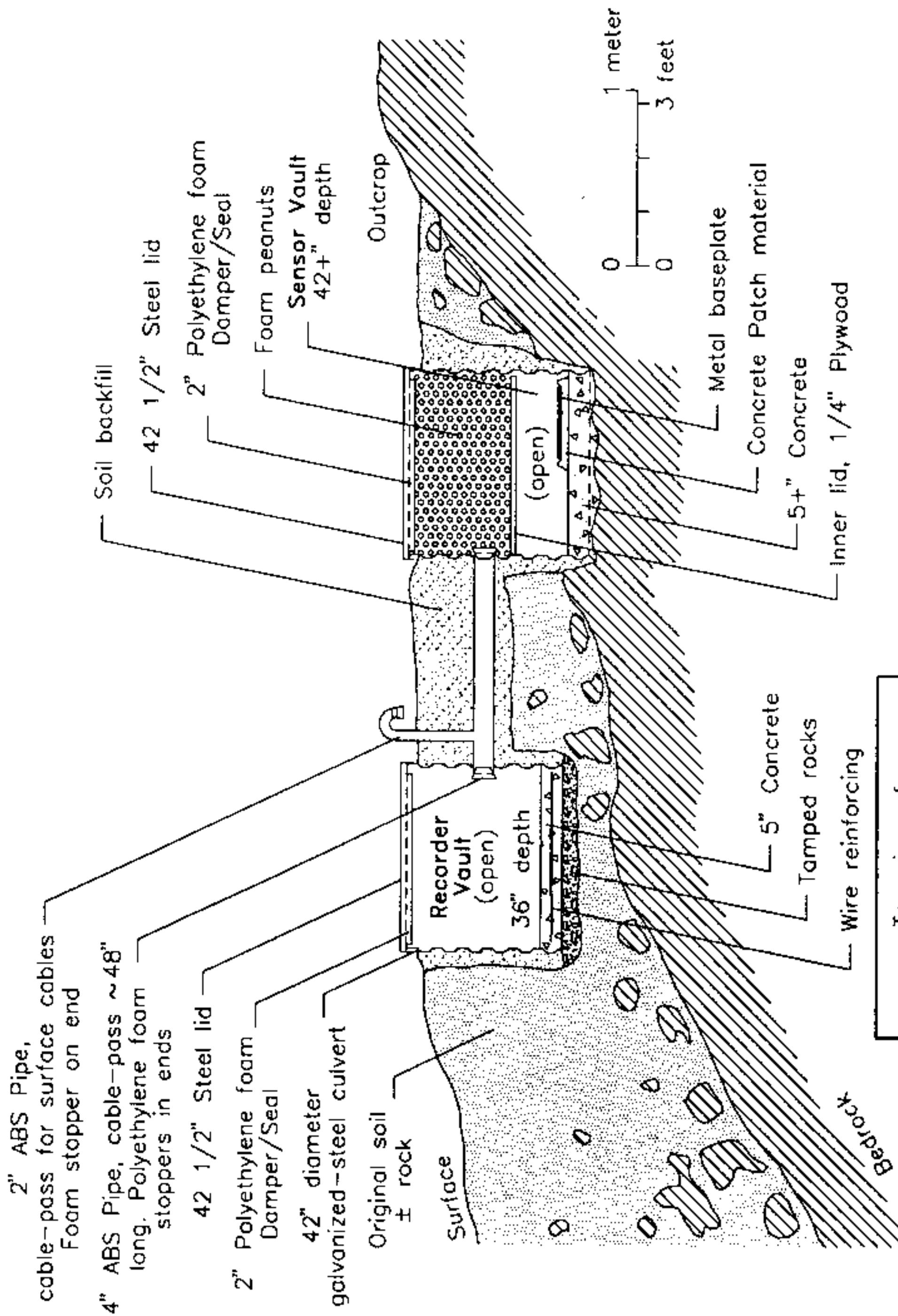
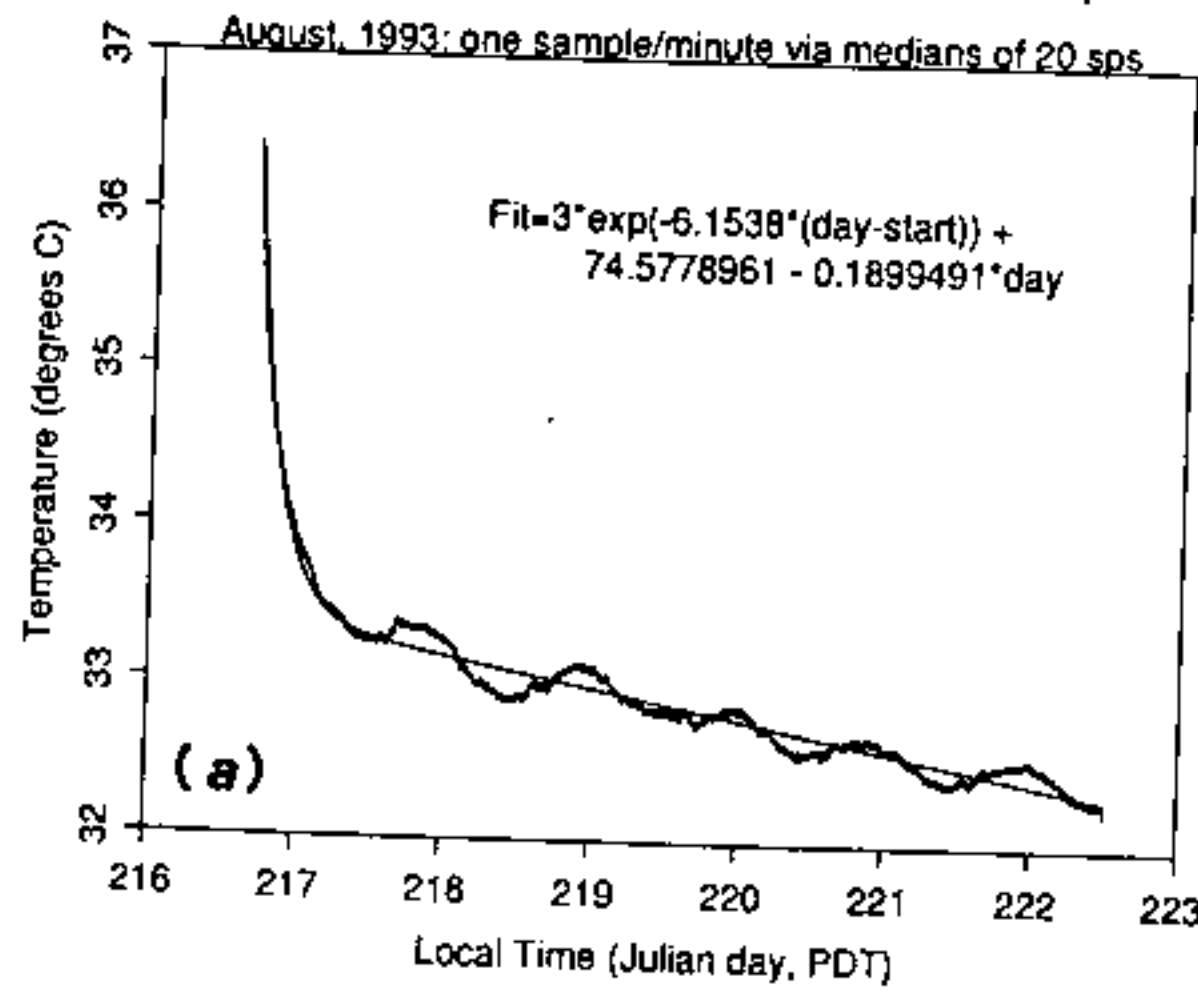


Figure 1b. Diagram of the secure winter-rated vaults we developed for this study. Early versions had only 36-inch deep sensor vaults and lacked the 2-inch ABS cable-pass to the surface. Barbed-wire fence surrounds the site wherever livestock-incursions might occur. Inset shows plan surface view of recorder vault, with chain and padlock passing through lid handles and down into basal concrete on both sides of culvert. Sensor-vault inner-lid legs not shown.

Ingram Canyon Vault, STS-2 Dome Temperature



Ingram Canyon Vault, STS-2 Dome Temperature

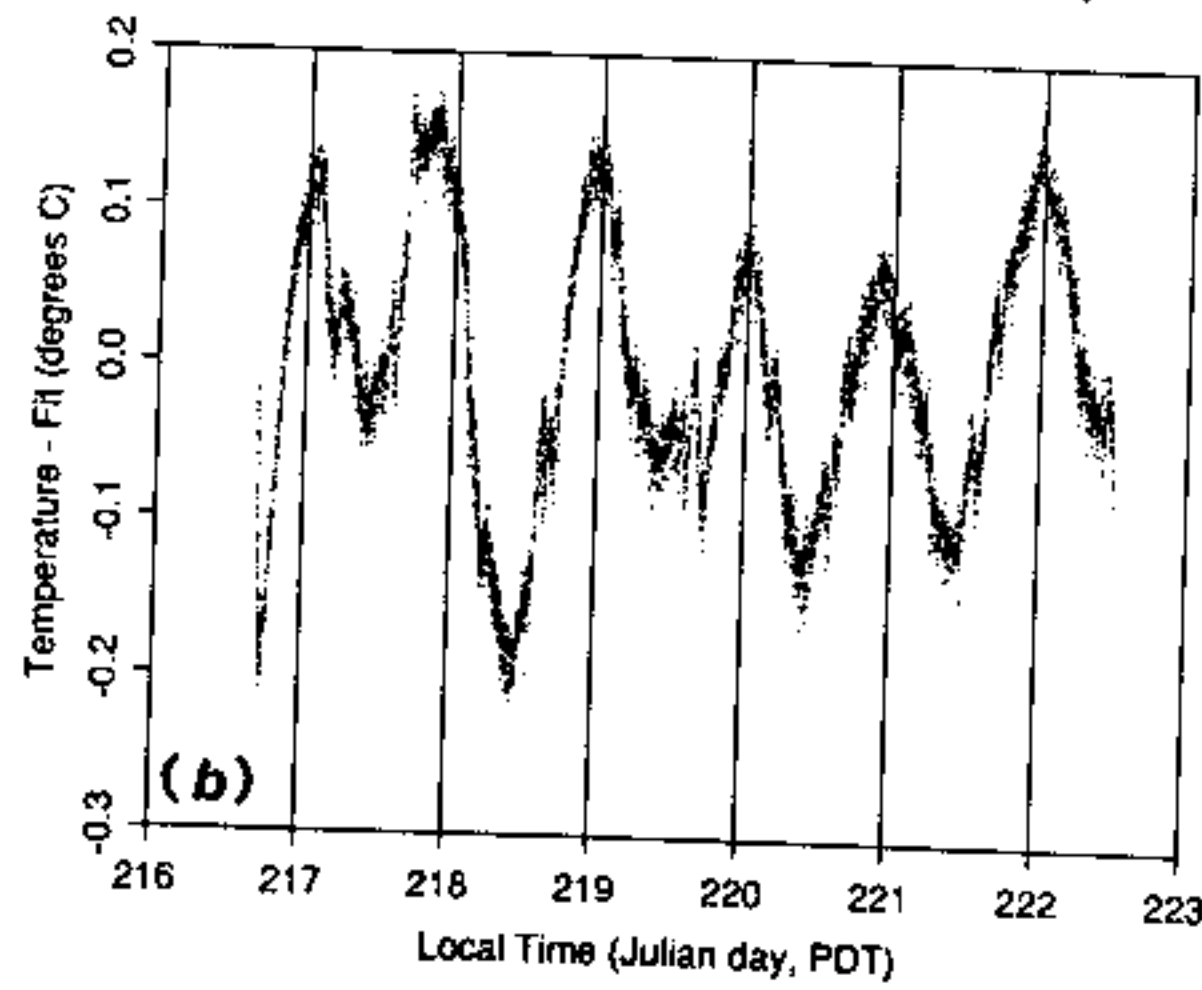


Figure 2. Temperature variation of Streckeisen™ STS-2 dome in the Ingram Canyon vault, SFT5, over a 5.8-day period following vault closure. This vault was 36 inches deep and shaded by wooden pallets and a tarp. (a) Raw dome temperature and a hand-fit linear-plus-exponential function. The fit function removes the exponential cool-down following vault closure, and removes a slow, possibly weather-induced decline. (b) Raw temperature minus the fit, hence the diurnal cycle of the sensor dome.

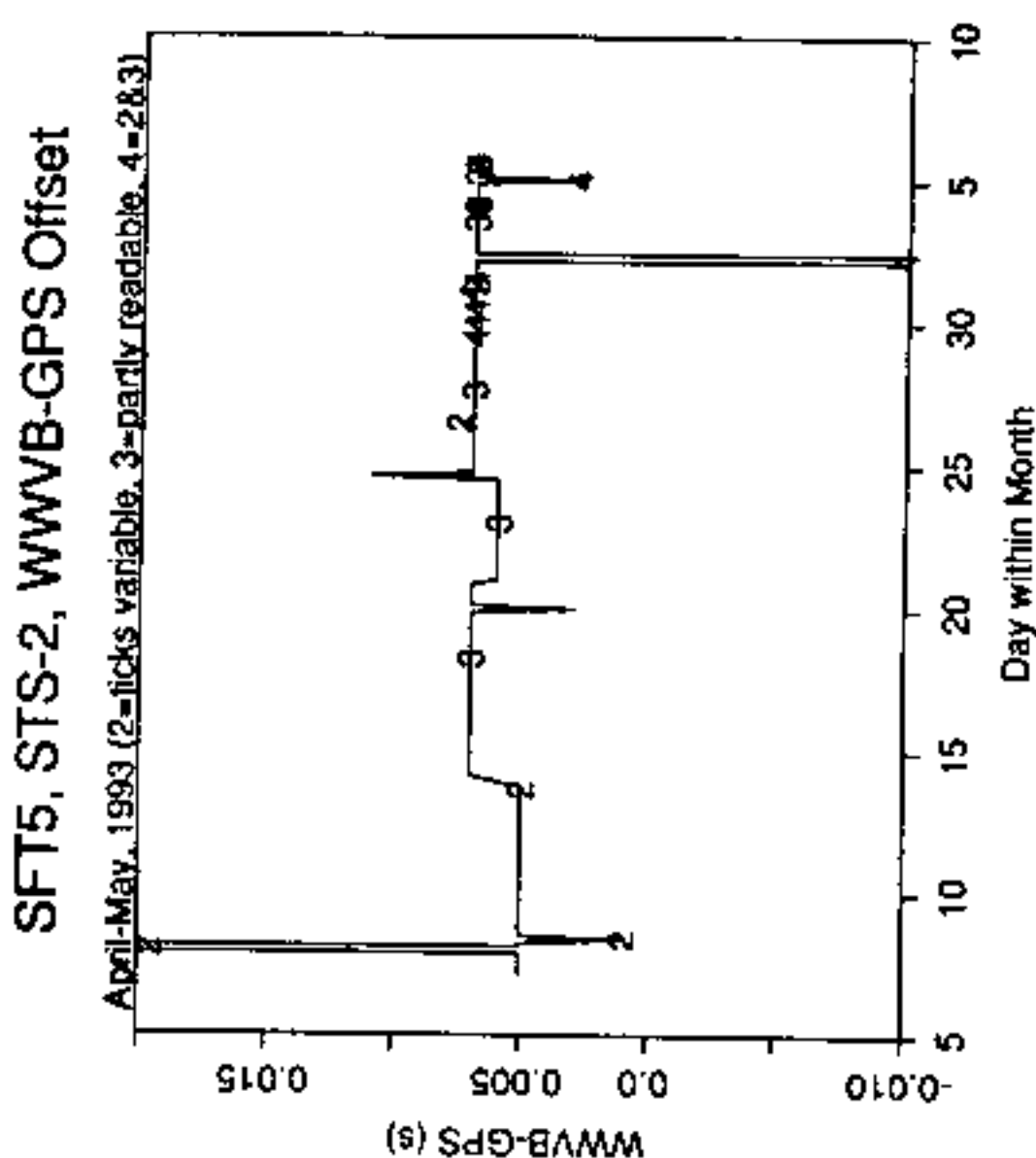
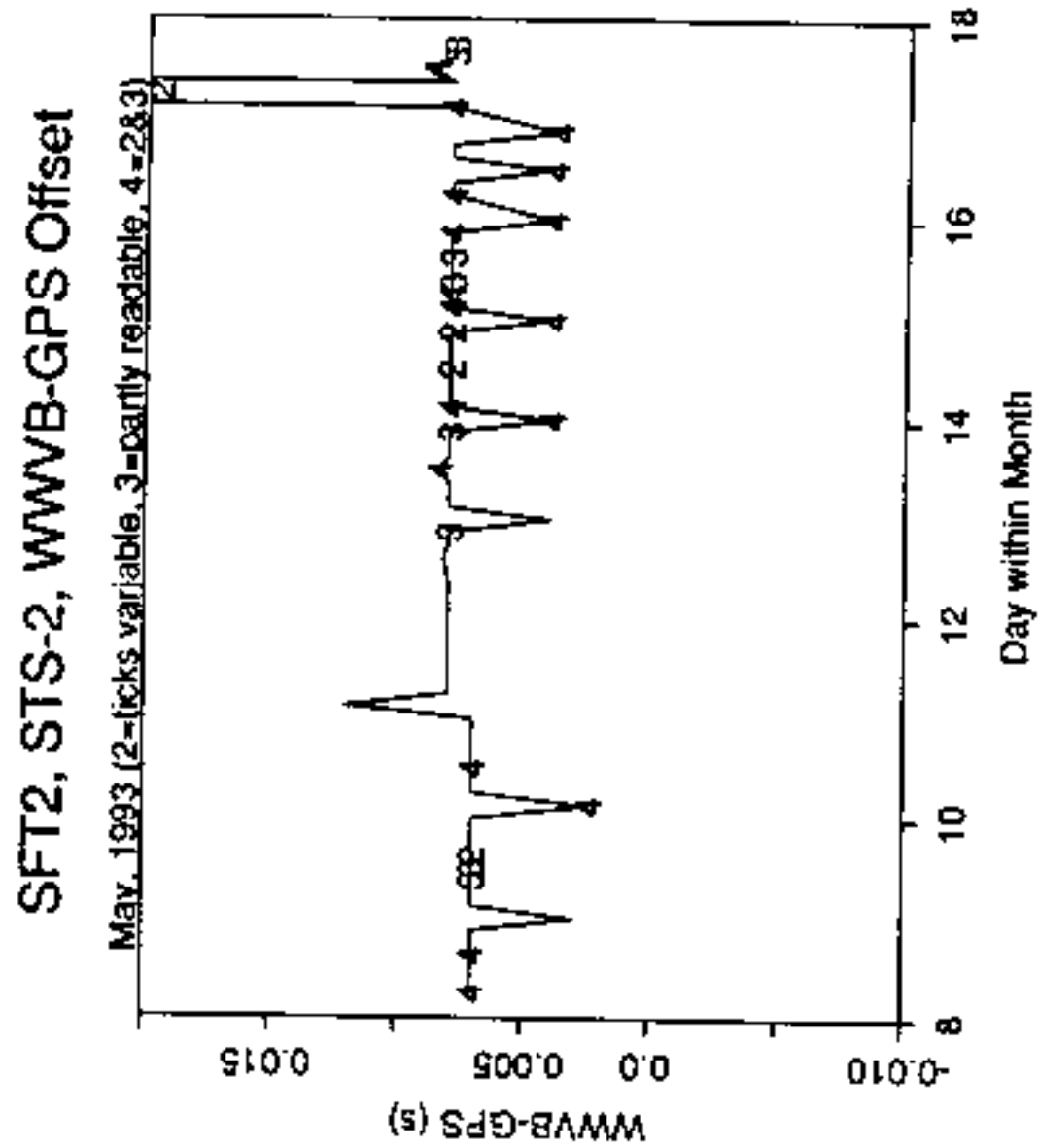
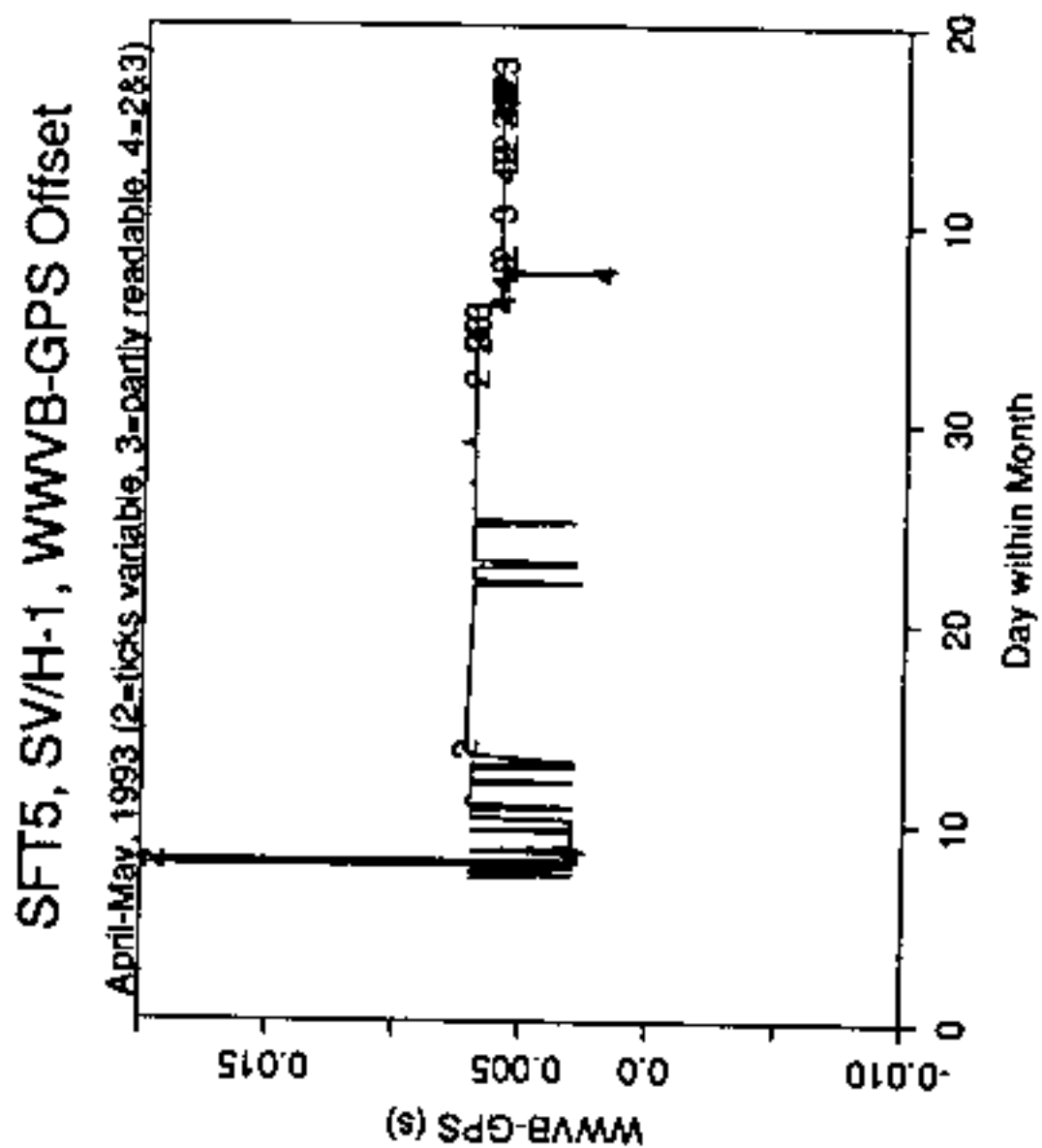


Figure 3. WWVB time versus GPS time. WWVB time-code was sampled at 250 sps (4 ms sample interval) and read with program *ahwwvb*, a robust signal processor and interpreter (Appendix F). GPS was programmed for a 5-minutes-per-hour duty cycle (extendable to 20 minutes in bad signal conditions), and was used to correct the internal TCXO of the RefTek™ DAS. In our experience, the Trimble™ GPS receiver rarely failed to obtain a good signal lock at our open hill-top sites. The digits in the body of the plots derive from *ahwwvb* error messages and warnings ("2" means the interval between second marks varied significantly during the 80-s WWVB sample; "3" means the time code was only partly decipherable; "4" means both conditions apply). Note that, apart from an advance of about 5 ms in WWVB, the only large deviations between the time standards are accompanied by the warning that the interval between second marks varied significantly during the WWVB sample—an indication of a badly corrupted WWVB signal.



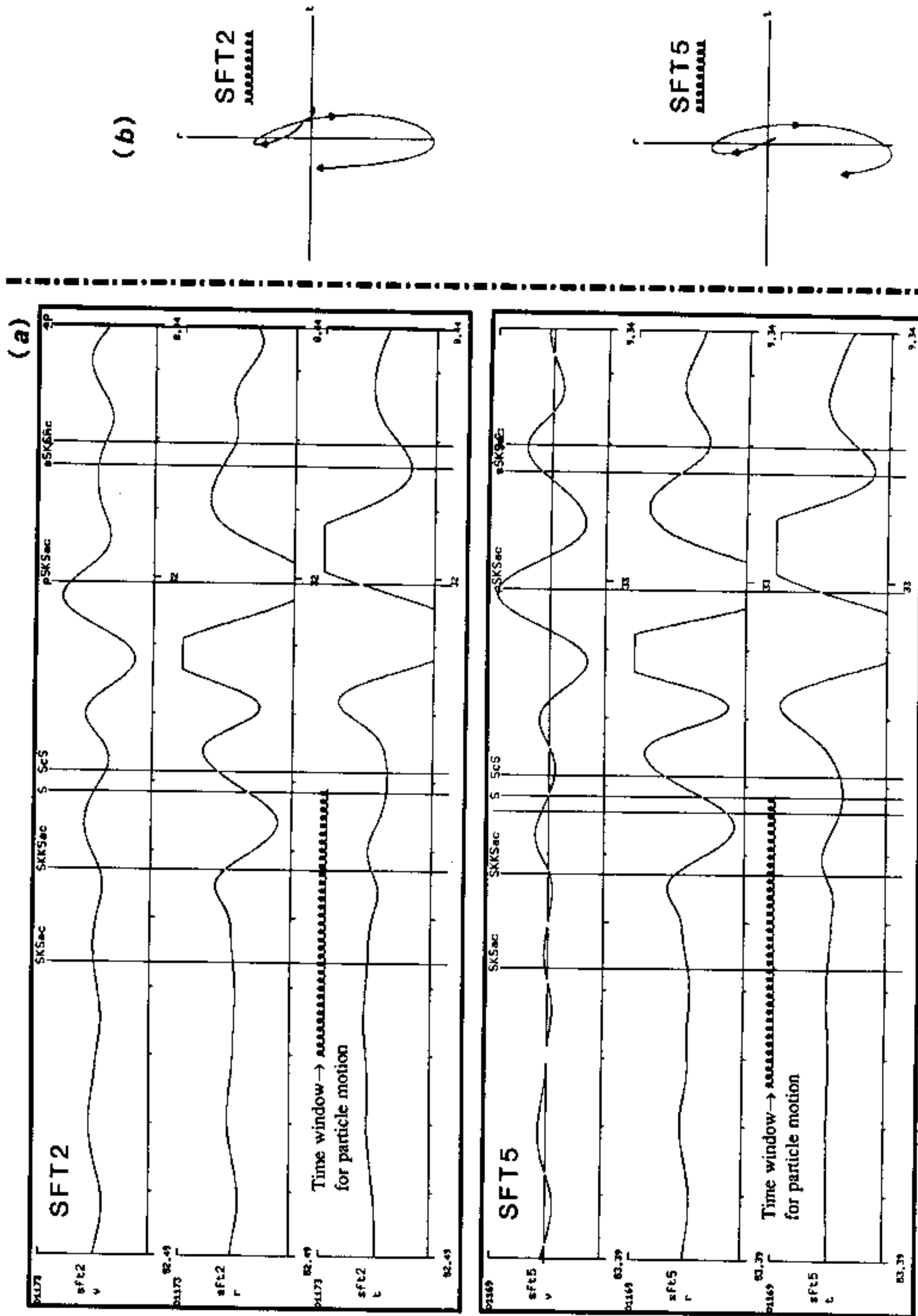


Figure 4. A clear example of splitting—the large Taiwanese earthquake (1993:219:00:12:21). (a) About 135 s of the seismograms, the shear phases with their *isp91* times identified. (b) The polarization diagrams, showing horizontal particle motion in a time window from before SKS_{sec} up to the time of S. Data are from STS-2 sensors at SFT2 (New Almaden) and SFT5 (Ingram Canyon). Splitting of these core phases is apparent—the polarization diagrams in (b) would be linear and in the radial, "r", direction if SKS_{sec} and SKKS_{sec} were not split. The degree and orientation of the splitting is outwardly similar between the two stations, though SFT5 is 70 km northeast of the San Andreas fault and 40 km northeast of the Calaveras fault. SFT2 lies between those two faults.